

REMARKS

Claims 1-59 are presently pending, of which Claims 1-36 and 40-59 have been withdrawn from consideration.

Rejection under 35 U.S.C. § 102

The Examiner rejected Claims 37 and 38 under 35 U.S.C. § 102(e) as being anticipated by Hansen *et al.* (U.S. Patent 6,348,995).

Independent Claim 39 has been amended to recite subwavelength moth-eye optical structures. Independent Claim 37 recites a plurality of moth-eye structures.

Hansen *et al.* disclose in FIGS. 5A and 5B a polarizer device 45 that includes a grid of closely spaced conductive elements 46 supported on a substrate 47. The upper surface 48 of the conductive elements has been given a texture. It is respectfully submitted, however, that the conductive elements 46 are not subwavelength moth-eye optical microstructures.

As set forth on page 4, lines 24-27 and with reference to FIG. 2 of the present application, the moth-eye structure has an amplitude (A) of about 0.4 micrometers and a period (P) of less than about 0.2 micrometers and is sinusoidal in appearance. The moth-eye structure greatly increases transmission of light through the structure. As illustrated in FIG. 12, and with reference to page 11, line 8 through page 12, line 7, it is known that essentially 0% of the light component that is perpendicular to the linear moth-eye rows is reflected at each moth-eye boundary because the moth-eye acts as an anti-reflection surface in this direction. It is also known that approximately 4% of the light component which is parallel to the linear moth-eye is reflected at each linear moth-eye boundary because the light wave sees a flat surface rather than a moth-eye surface. Thus, with enough moth-eye layers, substantially all of the light component which is parallel to the linear moth-eye structures is reflected and only the light perpendicular to the linear moth-eye structures is transmitted therethrough to create a linear reflecting polarizer.

Hansen *et al.* fail to disclose moth-eye structures. Thus, Hansen *et al.* do not disclose moth-eye optical microstructures disposed on one another and therefore, the rejection is traversed.

The Examiner rejected Claims 37-39 under 35 U.S.C. § 102(a) as being anticipated by Kawakami *et al.* (International Publication WO 00/08496; European Patent Application EP 1 103 829).

The '496 Publication discloses a polarizer having a structure in which two or more film-shaped materials which have substantially regular periodic one-dimensional undulation. The polarizer has substantially regularly arranged two-dimensional periodic structure. For example, the polarizer consists of two materials which have different refractive indexes.

It is respectfully submitted, however, that the '496 Publication does not disclose moth-eye structures and thus does not anticipate Claims 37-39. A stack of moth-eye structures, for example, at least 40 layers, is used to polarize the light as described above. In contrast, the polarizer in the '496 Publication relies on layers having different indexes of refraction to polarize the light. This is a different type of polarizer than set forth in Claims 37-39. The moth-eye layers of the present application can have the same index of refraction.

Rejection under 35 U.S.C. § 103

The Examiner rejected Claims 37-39 under 35 U.S.C. § 103(a) as being unpatentable over Ouderkirk *et al.* (U.S. Patent 6,262,842) in view of Hansen *et al.* (U.S. Patent Publication 2002/0015135).

It is respectfully submitted that Ouderkirk and Hansen *et al.*, taken individually or in combination, fail to teach or suggest all the limitations of independent Claims 37 and 38. Specifically, both Ouderkirk and Hansen *et al.* fail to teach moth-eye microstructures. Hansen *et al.* disclose a wire grid polarizing beam splitter, but this is clearly not a moth-eye microstructure.

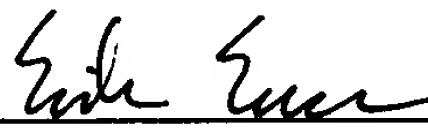
Accordingly, the rejection is respectfully traversed.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner believes that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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